

Supplemental Material to:

**Battuya Bayarmagnai, Brandon N. Nicolay,
Abul B.M.M.K. Islam, Nuria López-Bigas
and Maxim V. Frolov**

**Drosophila GAGA factor is required for full activation of
the dE2F1-Yki/Sd transcriptional program**

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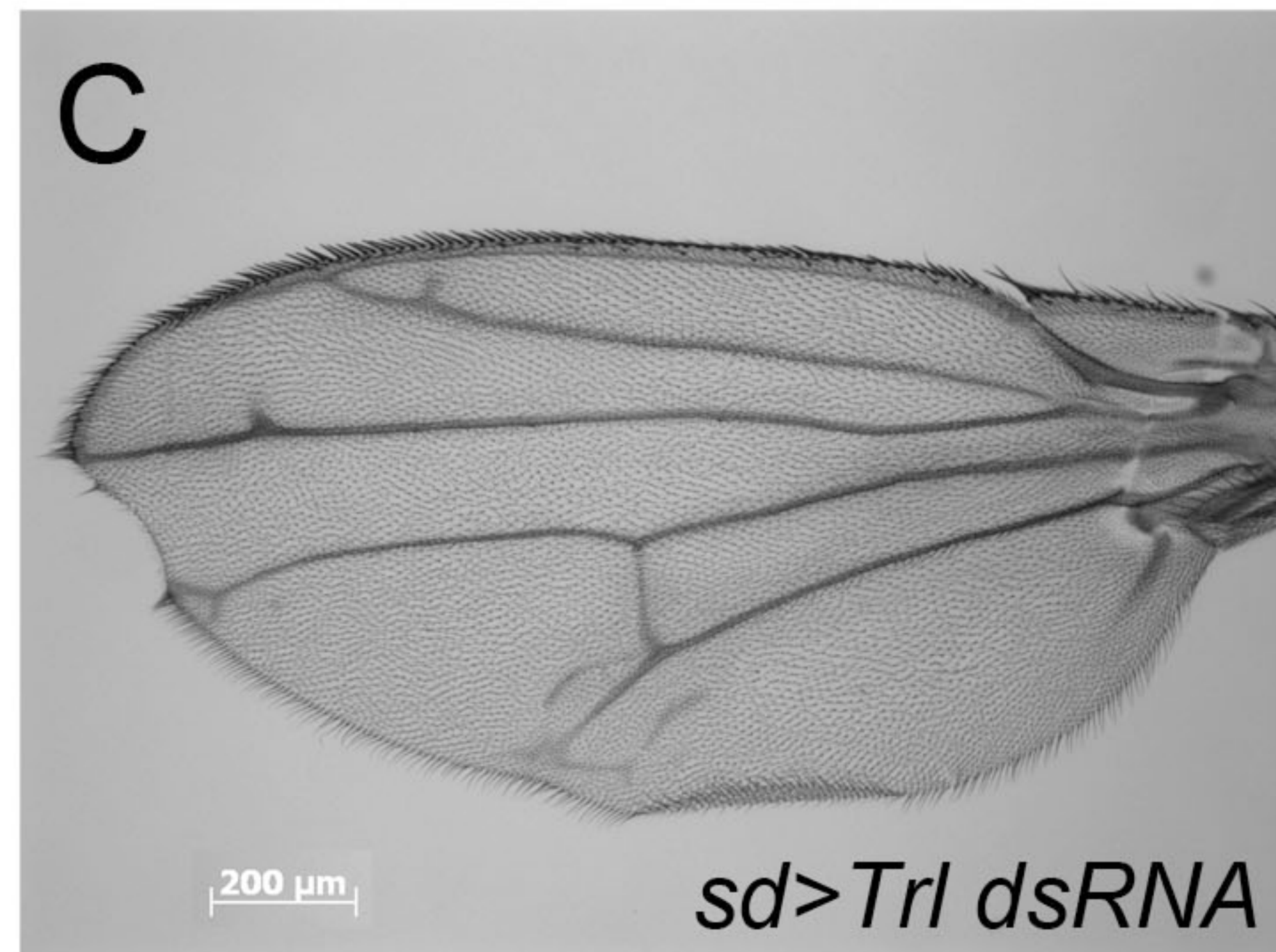
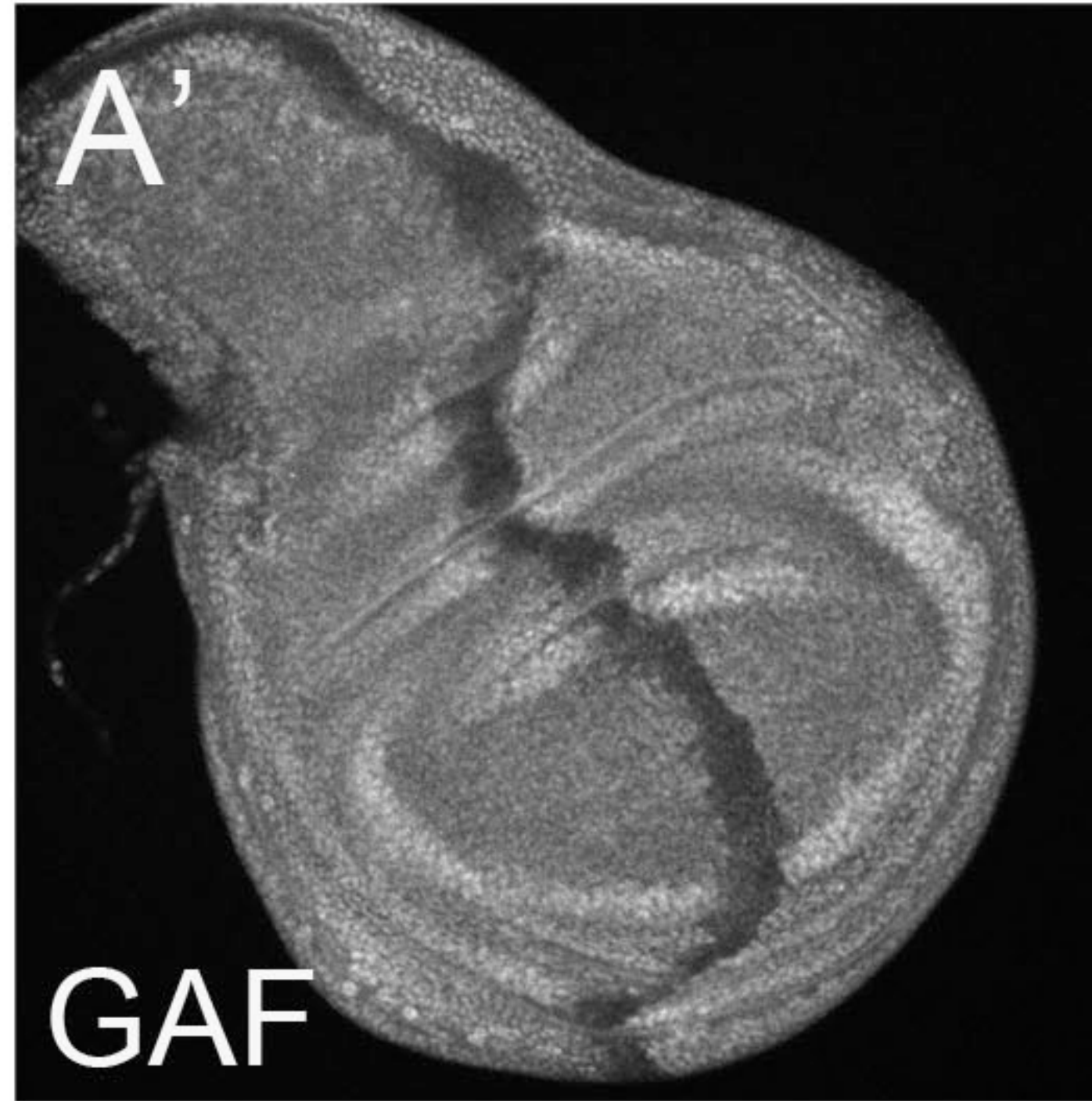
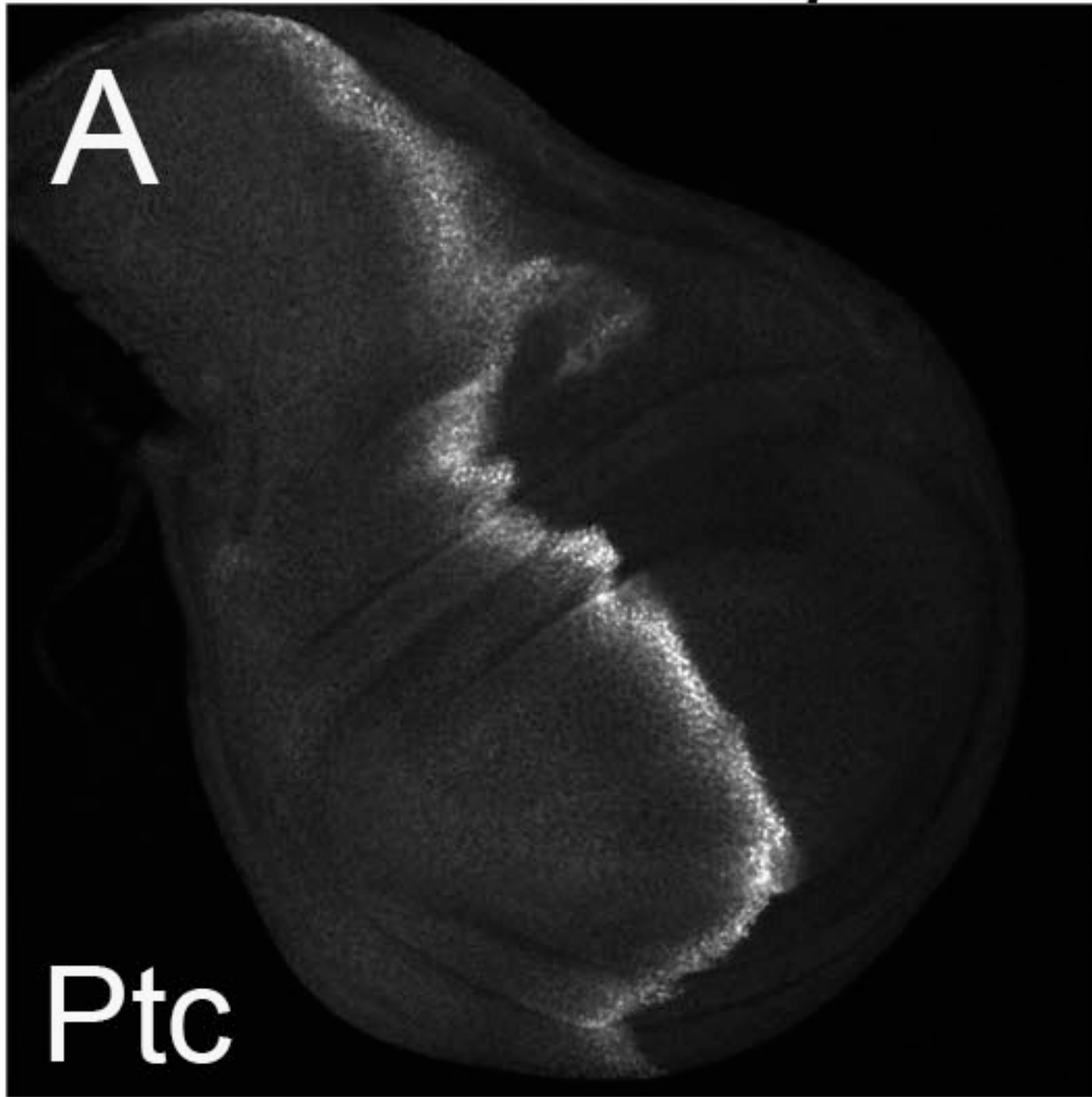
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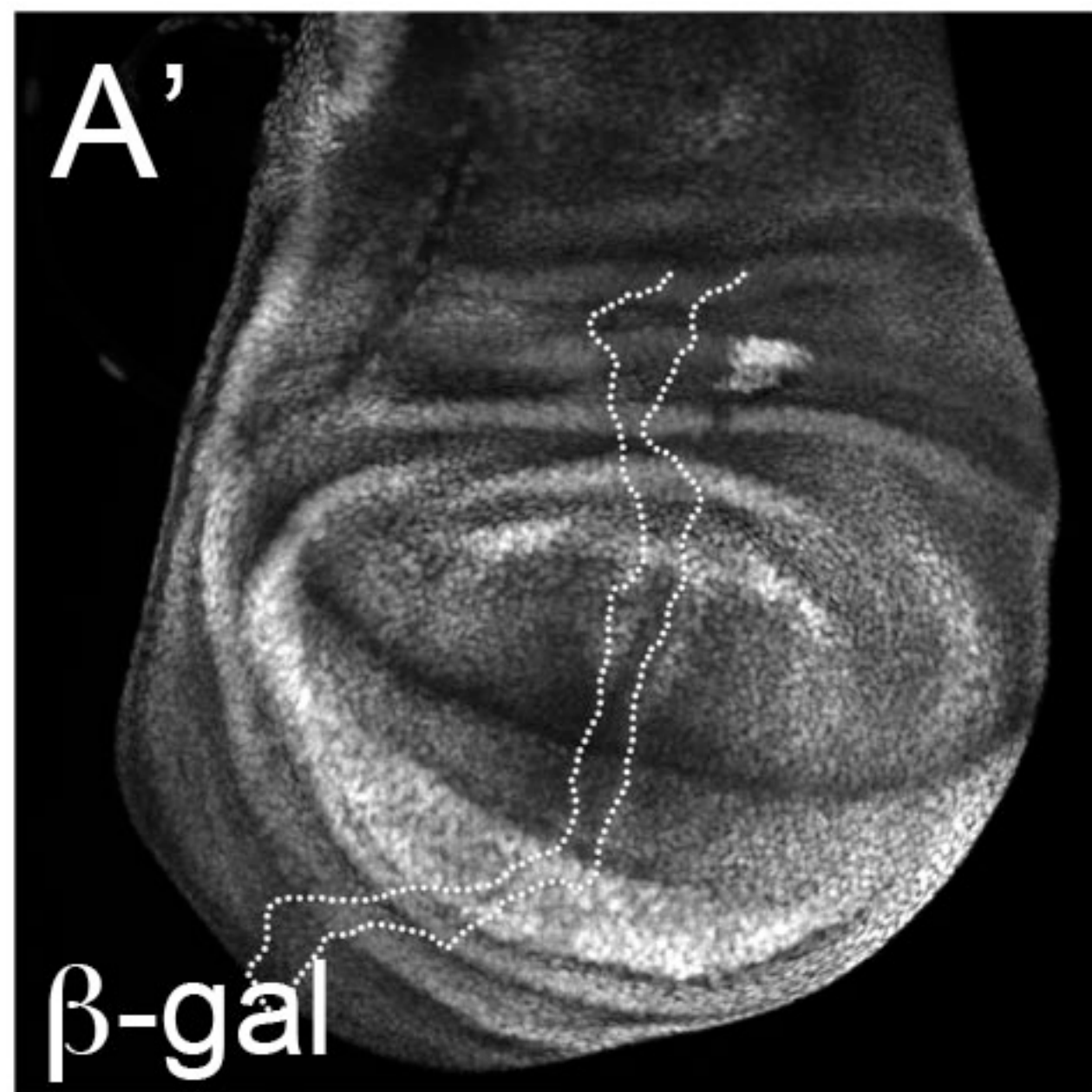
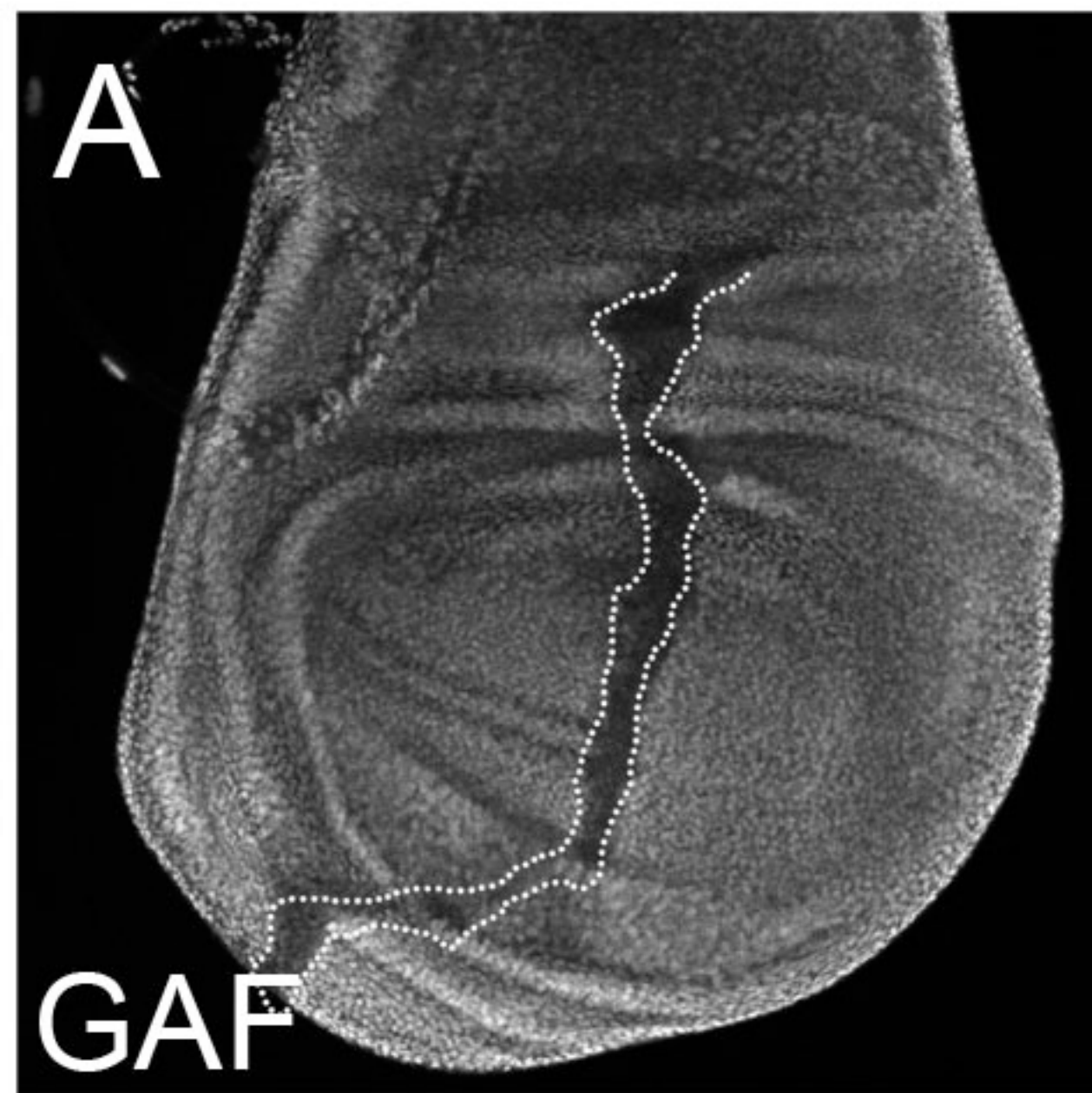
Supplementary Fig S1. Bayarmagnai et al

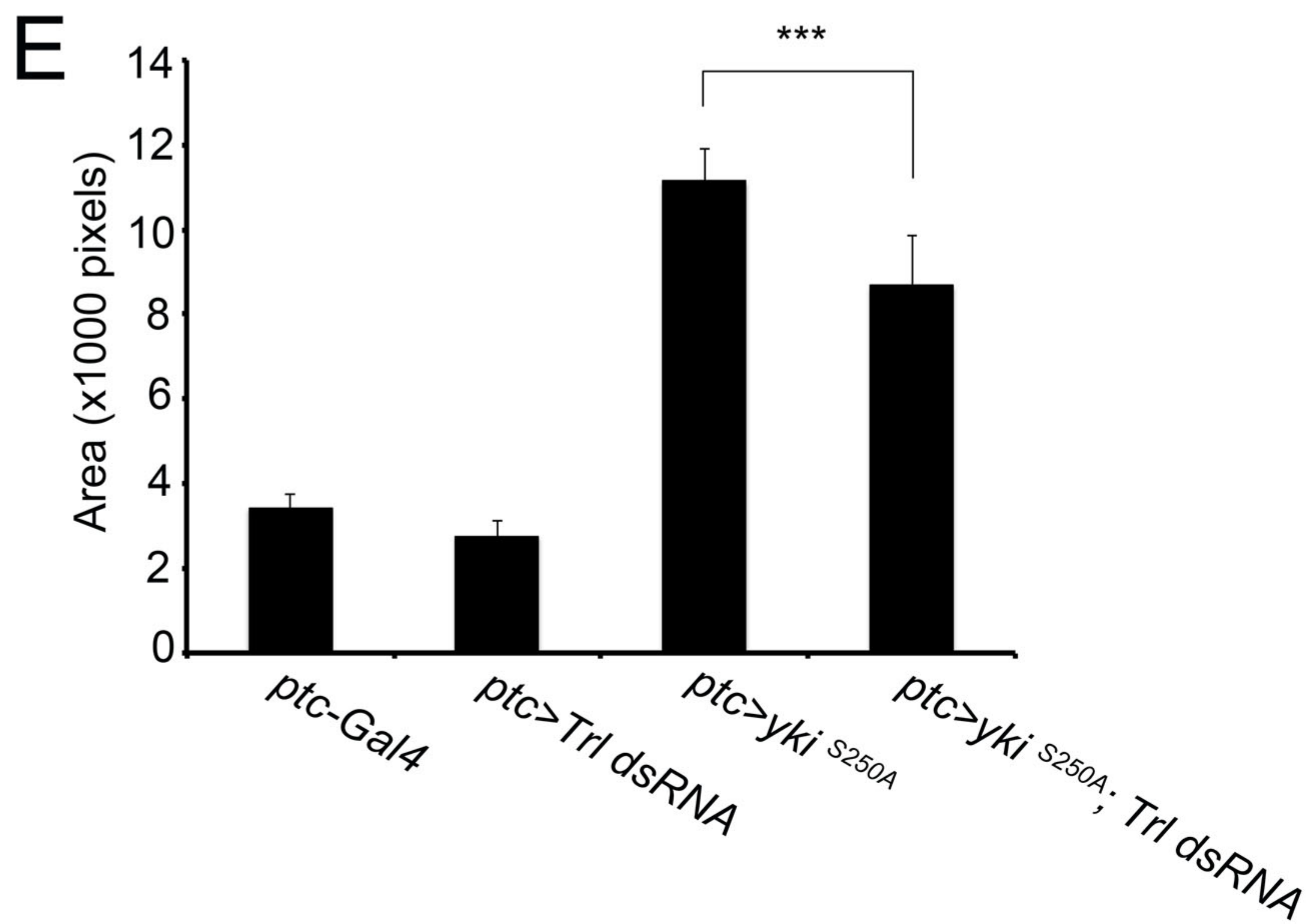
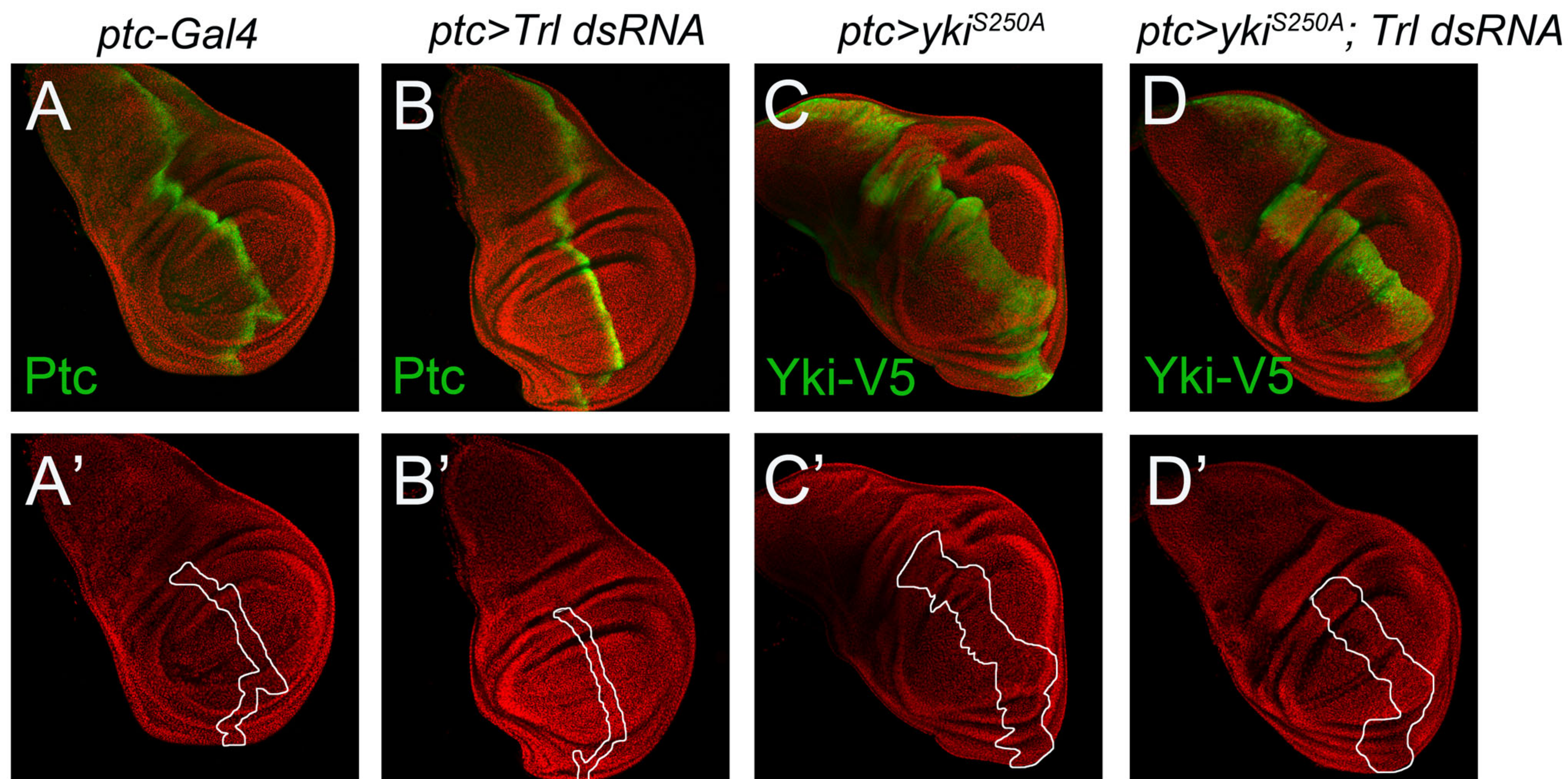
Trl RNAi (VDRC ID 41095) on III

ptc>Trl dsRNA



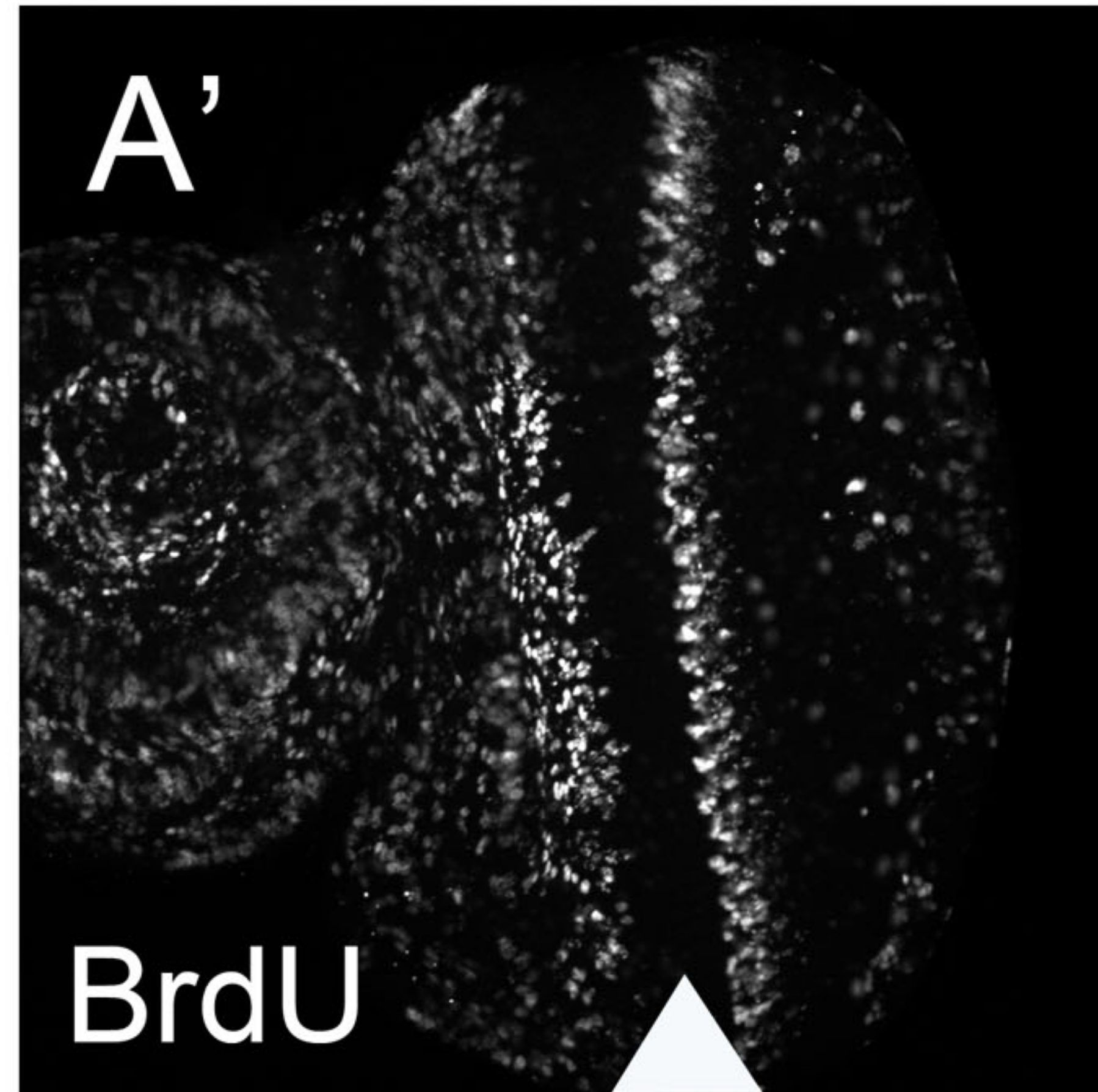
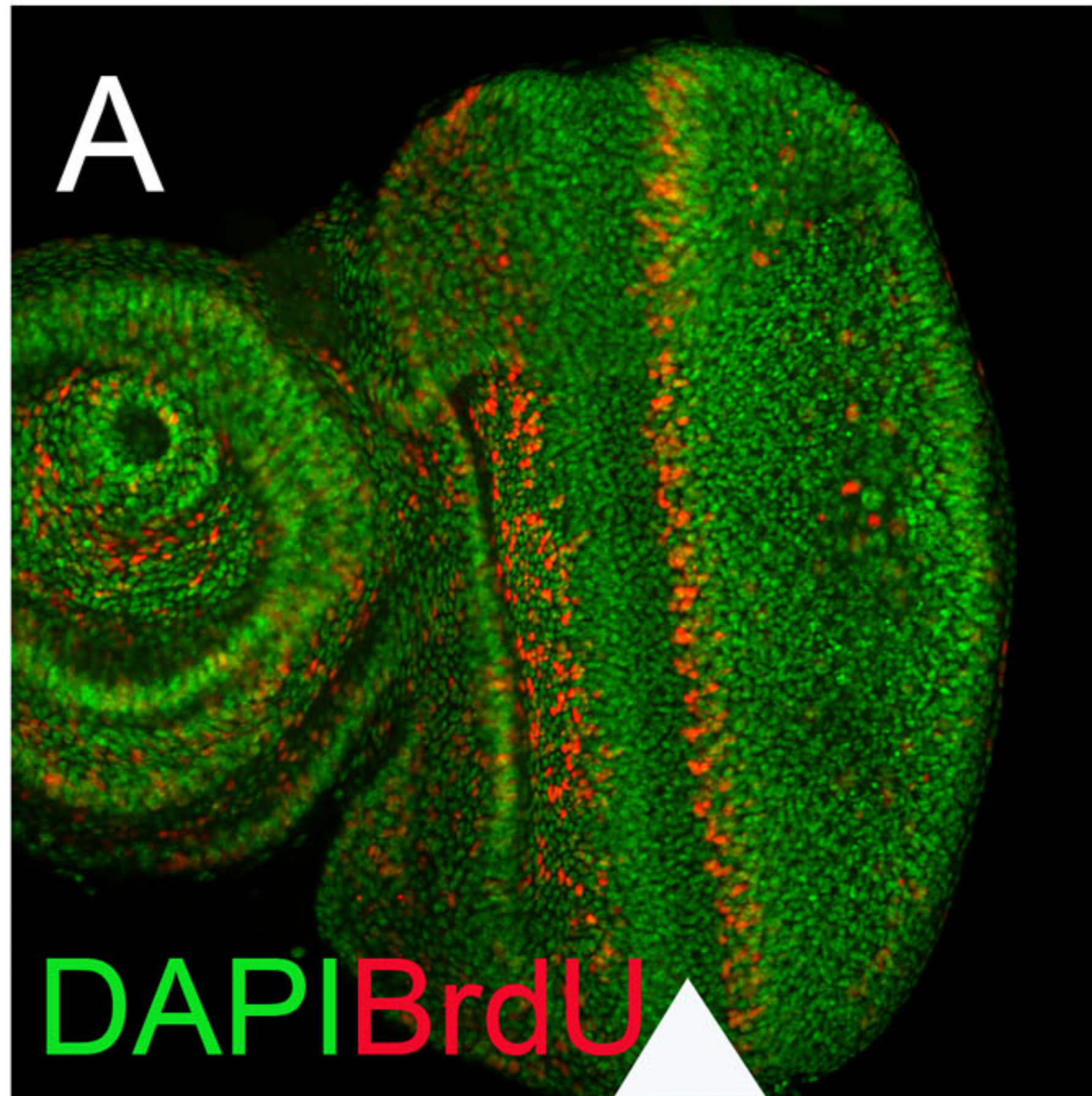
Supplementary Figure S2. Bayarmagnai et al
ptc>Trl dsRNA;ex-lacZ



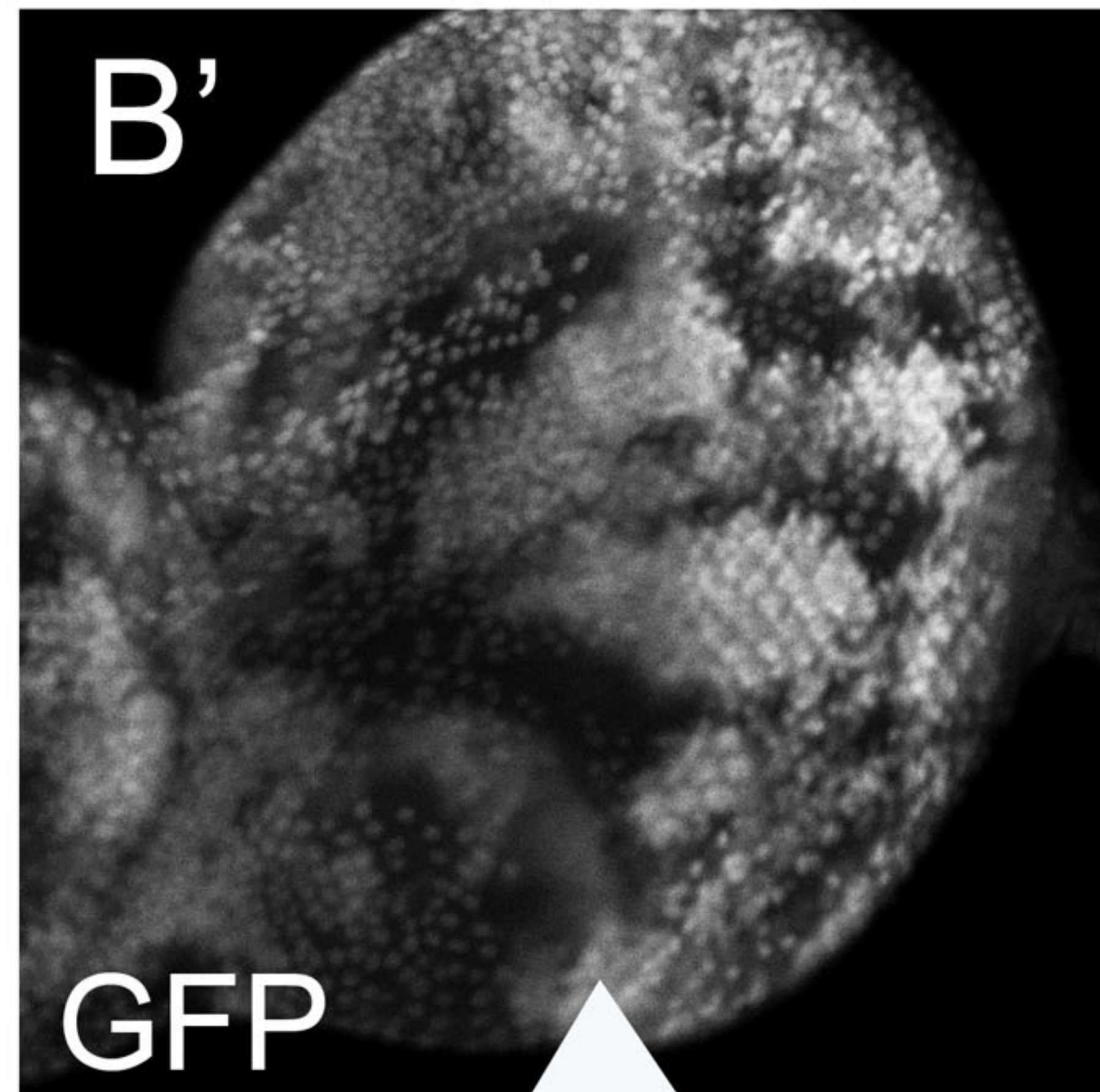
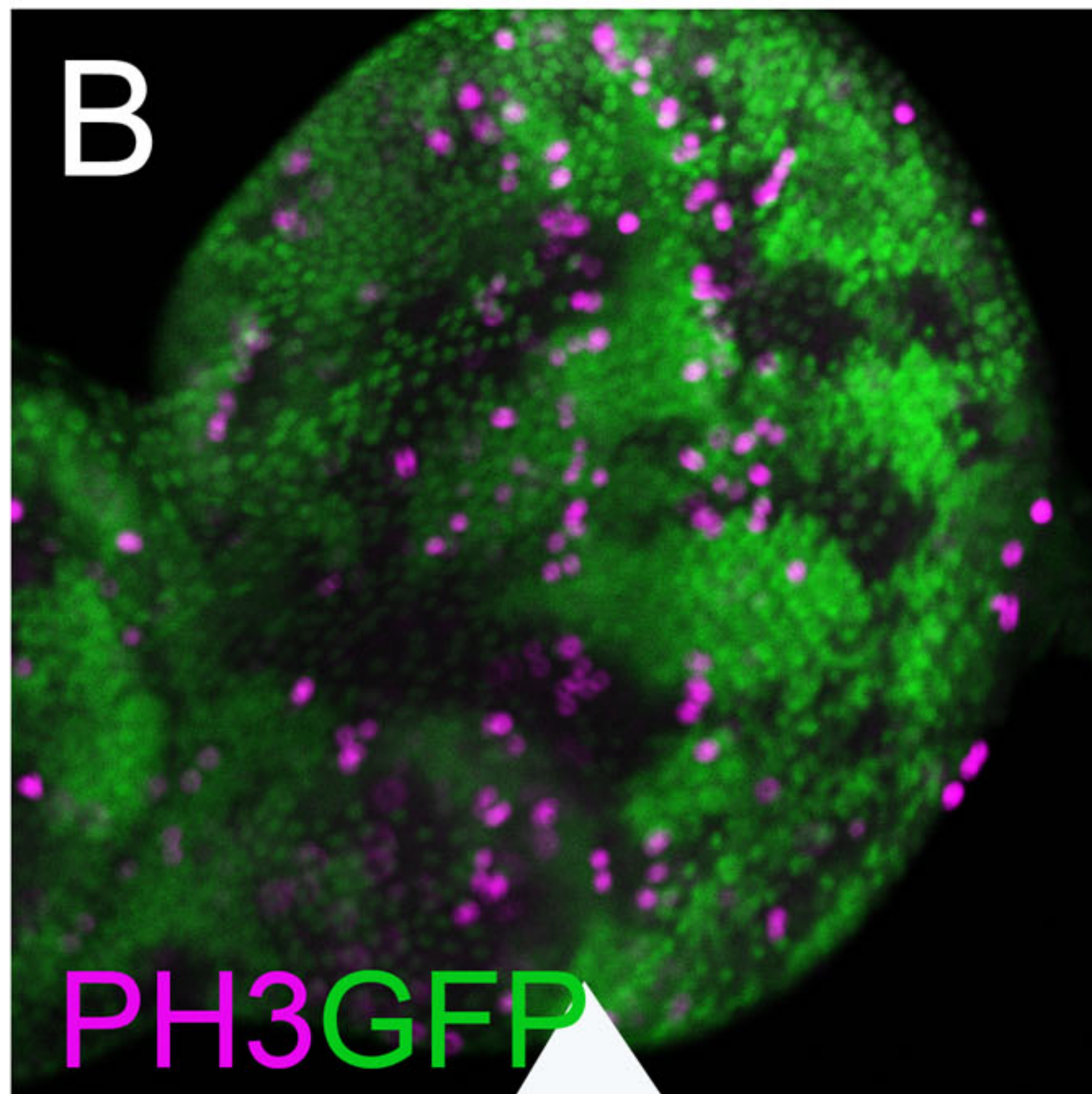


Supplementary Fig S4. Bayarmagnai et al

GMR>Trl dsRNA



eyFLP; 80BFRT Trl^{13C}



SUPPLEMENTARY FIGURE LEGENDS:

Supplementary Figure S1. *UAS-Trl dsRNA* lines efficiently deplete GAF protein.

ptc-driven *Trl dsRNA* (VDRC ID 41095) in the wing tissue. Third instar larval wing disc stained for Ptc protein (A) and GAF protein (A').

(B) *ptc>Trl dsRNA* adult wing with reduced L3-L4 intervein distance.

(C) *sd>Trl dsRNA* adult wing.

Supplementary Figure S2. Loss of GAF reduces the expression of the *ex-lacZ* reporter.

ptc-driven *Trl dsRNA* (VDRC ID 106433) efficiently depletes GAF protein (A) and reduces β -galactosidase (β -gal) protein level (A'), the product of the *ex-lacZ* reporter. White dotted outline marks the region of GAF depletion.

Supplementary Figure S3. Depletion of GAF reduces the Yki overexpressing domain in the wing pouch.

Third instar larval wing discs stained with DAPI (red) and anti-V5 antibody (green) to visualize the domain of Yki expression or with anti-Ptc antibody to mark the domain of the GAF knockdown in wild type wing discs.

(A-B) Control *ptc-Gal4* (A) and *ptc>Trl dsRNA* (B) wing discs with the Ptc expression domain outlined in the wing pouch (A', B').

(C, D) Depletion of GAF suppresses *yki*-induced cell proliferation in the wing as indicated by the reduction in the size of the Yki-V5 expression domain, outlined in (C', D').

(E) Quantification of the areas measured in A'-D'. The area was measured using the Histogram function on Adobe Photoshop and is presented in pixels. A Student's *t*-test was performed to draw statistically significant comparisons. *** indicates a P-value<0.001.

Supplementary Figure S4. Loss of GAF in the eye does not affect normal development.

(A) Third instar larval eye disc expressing *UAS-Trl dsRNA* (VDRC ID 106433) in the posterior compartment under the *GMR* driver. The nuclei are stained with DAPI (green) and cells undergoing S-phase are marked by BrdU incorporation (red) and in (A').

(B) *Trl^{13C}* mutant clones have been generated in third instar larval eye discs. The mutant clones are marked by the absence of GFP (green) and phosphorylated H3 (PH3, magenta) marks the cells undergoing mitosis. The white arrowhead marks the morphogenetic furrow.